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**A Declarative Semantics for Behavioral Inheritance and Conflict Resolution (1995)** ([Make Corrections](#)) ([10 citations](#))

Hasan M. Jamil, Laks V. S. Lakshmanan  
International Logic Programming Symposium

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**Abstract:** We propose a novel semantics for object-oriented deductive databases in the direction of F-logic to logically account for behavioral inheritance, conflict resolution in multiple inheritance hierarchies, and overriding. We introduce the ideas of withdrawal, locality, and inheritability of properties (i.e., methods and signatures). Exploiting these ideas, we develop a declarative semantics of behavioral inheritance and overriding without having to resort to non-monotonic reasoning. Conflict... ([Update](#))

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.... In both our attempts, we utilized this connection and exploited our experience in dealing with inheritance in logic based systems [5, 15, 13]. The belief function presented in section 3.2 incorporates the results from our work in [15, 13] and extends the idea here further to...

.... few years, several proposals also addressed the issue of a direct semantics for logic based object oriented languages, for example [6, 13, 14]. These proposals attempt to provide a higher level abstraction for the object oriented features such as objects, classes, subclasses,...

**Cited by:** [More](#)

Inheritance and Conflict Resolution - Jamil, Lakshmanan (2001) ([Correct](#))

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0.9: A Stable Model Semantics for Behavioral Inheritance in.. - Bugliesi, Jamil ([Correct](#))

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7: Miller D.: A Logical Analysis of Modules in Logic Programming, Journal of Logic Programming, 1989, pp. 79 19

**BibTeX entry:** ([Update](#))

M. H. Jamil and L. V. S. Lakshmanan. A declarative semantics for behavioral inheritance and conflict resolution. In Proc. of the 12th International Logic Programming Symposium (ILPS), pages 130–144, 1995.

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[Object-Oriented Bayesian Networks - Koller, Pfeffer \(1997\) \(Correct\) \(34 citations\)](#)

of model-based fault diagnosis in a hierarchical **component** model. OOBNs allow us to generalize over multiple similar objects. Classes also support **inheritance** of model fragments from a class to a to be defined only once. Our language has clear **declarative** semantics: an OOBN can be interpreted as a [robotics.stanford.edu/~koller/papers/uai97oobn.ps](http://robotics.stanford.edu/~koller/papers/uai97oobn.ps)

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[Modularity and Reusability in Attribute Grammars - Kastens, Waite \(1992\) \(Correct\) \(31 citations\)](#)

for decorating a tree has three distinct **components**: Computations The actual computations that the ideas of remote attribute access and **inheritance**, we have been able to define "attribution 1992 Abstract An attribute grammar is a **declarative** specification of dependence among [plaslab.cis.nctu.edu.tw/eriol/TR/modular.ps.Z](http://plaslab.cis.nctu.edu.tw/eriol/TR/modular.ps.Z)

[Design And Implementation Of Rock Roll: A.. - Barja, Fernandes, .. \(1995\) \(Correct\) \(20 citations\)](#)

OM Fig. 1: Relationship between the principal **components** in the architecture. The object manager and incorporating such objectoriented features as **inheritance** and a notion of identity. The proposal is basis in first order logic, support expressive **declarative** querying, and benefit from substantial [www.cee.hw.ac.uk/Databases/papers/infosys.ps](http://www.cee.hw.ac.uk/Databases/papers/infosys.ps)

[Lexical Operations in a Unification-based Framework - Copestake, Briscoe \(1992\) \(Correct\) \(17 citations\)](#)

tractable definition of a lexical rule as a **component** of a unification-based lexicon employing a unification-based lexicon employing (default) **inheritance** and typed feature structures. We claim that and extent of lexical operations, arguing for a **declarative** and computationally tractable definition of a [www.cl.cam.ac.uk/ftp/papers/acquilex/acq1wp21.ps.Z](http://www.cl.cam.ac.uk/ftp/papers/acquilex/acq1wp21.ps.Z)

[The ARANEUS Web-Base Management System - Mecca, Atzeni, Masci, Merialdo.. \(1998\) \(Correct\) \(17 citations\)](#)

discuss the key features and the corresponding **components** of the system. 3.1 Data Models In our at least the home-page falls in this category. **Inheritance** is not provided, in favor of heterogeneous should allow to access data in a Web-base in a **declarative**, high-level fashion this means that not only [www.difa.unibas.it/Araneus/publications/sigmod98.ps.gz](http://www.difa.unibas.it/Araneus/publications/sigmod98.ps.gz)

[Declarative Specialization of Object-Oriented Programs - Volanschi, Consel, Muller.. \(1997\) \(Correct\) \(16 citations\)](#)

Designing and implementing generic software **components** is encouraged by languages such as specialization classes is defined by a form of **inheritance**, based on predicate classes as developed by De Recherche En Informatique Et En Automatique **Declarative** Specialization Of Object-Oriented Programs [ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-3118.ps.gz](http://ftp.inria.fr/INRIA/publication/publi-ps-gz/RR/RR-3118.ps.gz)

[Order Independent and Persistent Typed Default.. - Lascarides, Briscoe.. \(1996\) \(Correct\) \(15 citations\)](#)

view the lexicon is still seen by the syntagmatic **component** as a list of lexical entries (represented as be used to define multiple orthogonal default **inheritance** in the lexicon in a fully **declarative** fashion. default **inheritance** in the lexicon in a fully **declarative** fashion. Secondly, we show how default lexical [www.cl.cam.ac.uk/ftp/papers/acquilex/acq2wp34.ps.Z](http://www.cl.cam.ac.uk/ftp/papers/acquilex/acq2wp34.ps.Z)

[A New Approach to Modularity in Rule-Based Programming - Browne, Emerson, Gouda.. \(1994\) \(Correct\) \(12 citations\)](#)

largest application was a reimplement of a **component** of a military IC 3 simulation. Section 4.2 container. Since Csupports multiple **inheritance** this requirement is usually not onerous. Abstract In this paper we describe a purely **declarative** method for introducing modularity into [www.almaden.ibm.com/cs/people/bayardo/ps/ictai94.ps.Z](http://www.almaden.ibm.com/cs/people/bayardo/ps/ictai94.ps.Z)

TriGS - Making a Passive Object-Oriented Database.. - Kappel.. (1994) (Correct) (10 citations)  
the short-term production scheduling and control **component** of a CIM-system [Adel91]For the purpose of makes explicit use of objects, message passing, **inheritance**, overriding and overloading to provide a extension of the object-oriented paradigm with (**declarative**) mechanisms to specify event-driven behavior  
<ftp.ifs.uni-linz.ac.at/pub/publications/1994/0294.ps.gz>

Differential Logic Programming - Bossi Bugliesi (1993) (Correct) (9 citations)  
i.e. a mechanism for constructing new program **components** by specifying how they differ from the operator on logic programs. Static and dynamic **inheritance** as well as composition by union of clauses can with the deductive process of resolution. At the **declarative** level, it rises two interesting issues:  
<strudel.di.unipi.it/papers/.sub-2400-900258094/DiffProg93.ps.gz>

The Role of Common Ontology in Achieving Sharable, Reusable.. - Gruber (1991) (Correct) (8 citations)  
software tools and knowledge bases as modular **components**. The only practical way to "share" or "reuse" facts, and organize knowledge to enable **inheritance** from these constructs. ffl Characterize ffl Separate knowledge from programs with a **declarative** knowledge representation language. ffl  
[ksl.stanford.edu/pub/KSL\\_Reports/.KSL-91-10.ps.gz](ksl.stanford.edu/pub/KSL_Reports/.KSL-91-10.ps.gz)

Indigo: A Local Propagation Algorithm for Inequality Constraints - Alan Borning (1996) (Correct) (8 citations)  
good.Indigo has actually been designed as a **component** of a larger algorithm, Ultraviolet, which implementation is in Smalltalk, and makes use of **inheritance**, so we'll describe it using object-oriented or cycles allowed All of these properties are **declarative** attributes of the constraints or the  
<ftp.cs.unh.edu/pub/csp/archive/papers/borning-et-al-indigo.ps.gz>

MCORBA: A CORBA Binding for Mercury - Jeffery, Dowd, Somogyi (1999) (Correct) (7 citations)  
a Mercury program both to operate upon CORBA **components** and to provide services to other CORBA makes the implementation of CORBA's interface **inheritance** straightforward, and makes it trivial for distributed object framework for the purely **declarative** logic/functional language Mercury. The binding  
[www.cs.mu.oz.au/research/mercury/information/papers/mcorba\\_padl99.ps.gz](www.cs.mu.oz.au/research/mercury/information/papers/mcorba_padl99.ps.gz)

Mutable Object State for Object-Oriented Logic Programming: A.. - Alexiev (1993) (Correct) (7 citations)  
system consists of a large number of **component** objects and their interactions .Examples of aspects of OOP (encapsulation, classes, **inheritance**, polymorphism and aggregation) can be a particular logic in order not to forfeit the **declarative** nature of LP. Classical logic is largely  
<menaik.cs.ualberta.ca/pub/oolog/state.a4.ps.Z>

The Information Agent: An Infrastructure Agent Supporting.. - Barbuceanu, Fox (1994) (Correct) (6 citations)  
We introduce the Information Agent as a **component** of the information infrastructure supporting express knowledge in a modular fashion, using **inheritance** and hierarchical organizations and rely on organizations and rely on well-defined **declarative** semantics to describe the meaning of  
<www.ie.utoronto.ca/EIL/public/wet-ice-94-final.ps>

GenEd - An Editor with Generic Semantics for Formal.. - Haarslev, Wessel (1996) (Correct) (6 citations)  
visual notations that consists of three **components**. Each **component** is defined by precise DL theories are based on the ideas of structured **inheritance** networks [8]A DL can be considered as a term should be offered an almost free-form, purely **declarative** style for specifications with immediate  
<kogs-www.informatik.uni-hamburg.de/~haarslev/publications/vl96.ps.gz>

OOD Frameworks in Component-based Software Development in.. - Lau, Ornaghi (1998) (Correct) (6 citations)  
OOD Frameworks in **Component**-based Software Development in Computational parametric, thus supporting classes, subclasses, **inheritance**, and framework composition. In particular, a problem domains. These frameworks have purely **declarative** (modeltheoretic) semantics. In this paper we  
<ftp.cs.man.ac.uk/pub/kung-kiu/lopstr98.ps.gz>

A Survey of Linear Logic Programming - Dale Miller (1995) (Correct) (6 citations)  
goal with multiple parts is required to have some **component** goal that can be reduced. This approach, used messages, and use multiset rewriting to capture **inheritance** and synchronization. One design principle that Natural language parsing Lolli has provided a **declarative** approach to gap threading within English  
<ftp.cis.upenn.edu/pub/papers/miller/ComputNet95/llsurvey.ps>

A model for inheritance and overriding in deductive.. - Dobbie, Topor (1993) (Correct) (6 citations)

have been implemented lack the kind of deductive **component** that has proved so useful for views in  
A model for **inheritance** and overriding in deductive object-oriented  
and overriding. In this model we define a **declarative** semantics based on preferred minimal models,  
[www.cit.gu.edu.au/~rwt/papers/ACSC93.ps](http://www.cit.gu.edu.au/~rwt/papers/ACSC93.ps)

[Towards a Mathematical Foundation For Design Patterns - Eden, Gil, Hirshfeld, Yehudai \(1998\)](#) [\(Correct\)](#) [\(4 citations\)](#)

p 1 refines pattern p 2 "or "pattern p 1 is a **component** of pattern p 2 "Finally, the prospects of  
specified in every pattern (Definition II)2. **Inheritance** class hierarchies are treated as monoliths  
model in symbolic logic and defined in LePUS, a **declarative**, higher order language. LePUS formulae  
[www.cs.concordia.ca/~faculty/eden/articles/oopsla98/towards\\_a\\_mathematical\\_foundation\\_for\\_design\\_patterns.pdf](http://www.cs.concordia.ca/~faculty/eden/articles/oopsla98/towards_a_mathematical_foundation_for_design_patterns.pdf)

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Software Maintenance, 2001. Proceedings. IEEE International Conference on , 7-9 Nov. 2001

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[\[Abstract\]](#)    [\[PDF Full-Text \(255 KB\)\]](#)    **IEEE JNL****2 Declarative semantics of interoperable data- and knowledge-bases***Reichwein, G.; Fiadeiro, J.L.; Rohen, M.;*

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